

REMARKS

Claims 1-16 are pending in the application. New claims 15 and 16 have been added.

Claims 1 and 8 are independent.

Claim Rejections - 35 U.S.C. § 103

(a) Claims 1-4 and 8-11 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Yamashita et al. (USP 6,750,437) in view of Loose (USP 6,759,641) and Nakano et al. (USP 6,094,220). This rejection is respectfully traversed.

Yamashita discloses, in Fig. 3, a pixel 309 having two photodiodes 301, 302 and a microlens that covers the photodiodes 301, 302. However, Yamashita fails to disclose or suggest that these two photodiodes are “a main photosensitive cell, having a first area, and an auxiliary photosensitive cell, having a second area smaller than the first area,” as required in claim 1.

The Examiner relies on the Loose reference to show that it discloses a photodiode PD1 and a photodiode PD2 different in sensitivity from each other and respectively formed by a main photosensitive portion and an auxiliary photosensitive portion.

Even assuming that the Examiner’s statements are true, Loose fails to disclose or suggest that one of the photodiodes has a first area, and the other of the photodiodes has a second area smaller than the first area, as required in claim 1.

The Examiner also relies on the Nakano reference to show that it discloses the method of processing image signal. Nakano, however, does not disclose or suggest providing two photodiodes, one of which having a first area and the other of which having a second area smaller than the first area, as required in claim 1.

In view of this, even assuming that Yamashita, Loose, and Nakano can be combined, which Applicants do not admit, one of ordinary skill in the art would not have conceived the claimed invention of the present application at least because none of the cited references discloses or suggests providing composite pixels, each of which including "a main photosensitive cell, having a first area, and an auxiliary photosensitive cell, having a second area smaller than the first area," as required in claim 1.

Claims 2-4, variously dependent on claim 1, are allowable at least for their dependency on claim 1.

Claim 8 is allowable at least for the similar reasons as stated in the foregoing with regard to claim 1.

Claims 9-11, variously dependent on claim 8, are allowable at least for their dependency on claim 8.

The Examiner is respectfully requested to reconsider and withdraw this rejection.

(b) Claims 5 and 12 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Yamashita et al. in view of Loose and Nakano, and further in view of Nakata et al. (USP 6,747,696). This rejection is respectfully traversed.

Claim 5, indirectly dependent on claim 1, is allowable at least for its dependency on claim 1.

Claim 12, indirectly dependent on claim 8, is allowable at least for its dependency on claim 12.

The Examiner is respectfully requested to reconsider and withdraw this rejection.

(c) Claims 6-7 and 13-14 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Yamashita et al. in view of Loose and Nakano, and further in view of Ng et al. (USP 5,699,102). This rejection is respectfully traversed.

Claim 6 and 7, variously dependent on claim 1, are allowable at least for their dependency on claim 1.

Claims 13-14, indirectly dependent on claim 8, are allowable at least for their dependency on claim 12.

The Examiner is respectfully requested to reconsider and withdraw this rejection.

New Claims

Claims 15 and 16 have been added.

Claim 15, dependent on claim 1, is allowable at least for its dependency on claim 1.

Claim 16, dependent on claim 8, is allowable at least for its dependency on claim 8.

A favorable determination by the Examiner and allowance of these new claims is earnestly solicited.

Conclusion

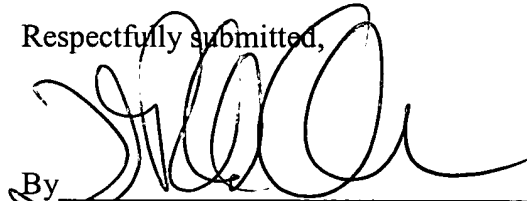
Accordingly, in view of the above amendments and remarks, reconsideration of the rejections and objections, and allowance of the pending claims are earnestly solicited.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Maki Hatsumi (#40,417) at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or to credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

Dated: July 6, 2006

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'D. Anderson', written over a horizontal line.

By

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